

Reactions when we tell lies

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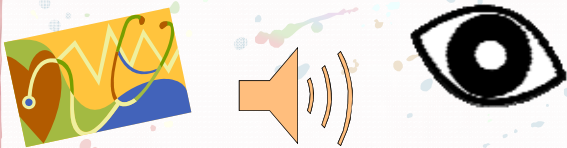
Research purpose

- It is said that we make some reactions when we tell lies .

We decided to research them!!

Outline and Expectation

Ask some questions → Analyze the change



Heart rates rise? Voice pitches higher? Blinking increase?

experimenter

participant

camera

questioner

camera

Experiment Method

questioner

participant

Some questions

...No

Measured heart rates and took their faces and whole figures with 2 video cameras .

- We measured...

The number of times of **blinking**
Voice pitches and **Heart rate**

used the formula of T test

$$t = \frac{|A_t - A_n|}{\sqrt{\frac{SD_A^2 \cdot N_A + SD_B^2 \cdot N_B}{N_A + N_B - 2} \left(\frac{1}{N_A} + \frac{1}{N_B} \right)}}$$

T test

Compared the two groups

People answered 'No' to the question which their answer is 'Yes'.

They told lie.

People answered 'No' to the question which their answer is 'No'.

control group

Results

- According the data we got , we made a graph .



There are no big differences among averages of heart rates , the number of blinking , voice pitches .

Example



1	x	x	x
2	x	x	x
3	x		x
4	x	x	x
5	x	x	x
6	x	x	x
7	x		x
8		x	x
9		x	
10	x	x	x

Average has

raised greatly
taken a downturn
no big changes

consideration



here are a lot of reflection points!!

Reflection points

We suggested the reason we had gotten the data above ;

- Disagreement of conditions of experiments
- Precision of the application
- Questions were not appropriate.

Thank you
for
listening!!

Thanks to Shione Inoue, Lisa tatsumi, Tsugumi Yano, Shiho Tamazawa

Quiz

- Which is false thing we measured?
 - a)Blinking
 - b)Body temperature
 - c)Heart rates
 - d)Voice pitches

Quiz

- Which test did we use?
 - a)e test
 - b)i test
 - c)t test
 - d)x test